START

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ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 167431

Proj. ECN

2. ECN Category (mark one)							
Supplemental	[]	Change ECN	[]	Supersedure	[]		
Cancel/Void	[]	Direct Revision	[X]	Temporary	[]	Discovery	[]

3. Originator's Name, Organization, MSIN, and Telephone No.	4. Date
D. L. Smith, 81490, R2-77, 3-5729	June 19, 1992

5. Project Title/No./Work Order No.	6. Bldg./Sys./Fac. No.	7. Impact Level
RARA	216-U-1 & -2 cribs	4

8. Document Number Affected (include rev. and sheet no.)	9. Related ECN No(s).	10. Related PO No.
WHC-SD-DD-TI-063 Rev. 0	N/A	N/A

11a. Modification Work	11b. Work Package Doc. No.	11c. Complete Installation Work	11d. Complete Restoration (Temp. ECN only)
[] Yes (fill out Blk. 11b) [X] No (NA Blks. 11b, 11c, 11d)	N/A	N/A Cog. Engineer Signature & Date	N/A Cog. Engineer Signature & Date

12. Description of Change

Page 14, Subsection 4.2.5, third sentence:

Replace trademark name "Treflen" with generic term, "trifluralin-impregnated."

Page 18, Section 8, second paragraph, second sentence:

Same as page 14.

13a. Justification (mark one)							
Criteria Change	[X]	Environmental	[]	Facilitate Const.	[]		
Design Error/Omission	[]	Design Improvement	[]	As-Found	[]	Const. Error/Omission	[]

13b. Justification Details

These changes need to be made so that the document may be cleared for public release.

14. Distribution (include name, MSIN, and no. of copies)

See distribution sheet.

RELEASE STAMP

OFFICIAL RELEASE BY WHC

DATE JUL 13 1992

Sta. 4

JUL 1992 RECEIVED EDMC

A-7900-013-2 (11/88) (EF) GEF095
Engineering Change Notice

A-7900-013-1 (11/88)

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ENGINEERING CHANGE NOTICE	Page 2 of 2	1. ECN (use no. from pg. 1) 167431

15. Design Verification Required	16. Cost Impact				17. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION			
[] Yes	Additional	[] $N/A	Additional	[] $N/A	Improvement	[] N/A
[X] No	Savings	[] $N/A	Savings	[] $N/A	Delay	[] N/A

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]		[]
Environmental Report	[]	Inspection Plan	[]		[]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number Revision
N/A		

20. Approvals

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog./Project Engineer D. L. Smith	2-9-92	PE	
Cog./Project Engr. Mgr. D. R. Speer	2-9-92	QA	
QA		Safety	
Safety		Design	
Security		Other	
Proj. Prog./Dept. Mgr.			
Def. React. Div.			
Chem. Proc. Div.			
Def. Wst. Mgmt. Div.		DEPARTMENT OF ENERGY	
Adv. React. Dev. Div.			
Proj. Dept.			
Environ. Div.		ADDITIONAL	
IRM Dept.			
Facility Rep. (Ops.)			
Other			

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SUPPORTING DOCUMENT

1. Total Pages XX 28

2. Title	3. Number	4. Rev No.
216-U-1 and 216-U-2 Cribs Interim Stabilization Final Report	WHC-SD-DD-TI-063	0-A

5. Key Words	6. Author
Interim stabilization, decontamination, cribs, settling tank, septic tank, drain field APPROVED FOR PUBLIC RELEASE KMB 7/9/92	Name: D. L. Smith D. L. Smith 7-9-92 Signature Organization/Charge Code 81490/PJ44J

7. Abstract

This report documents the task and activities necessary to interim stabilize 216-U-1 and 216-U-2 cribs. Interim stabilization was necessary to maintain the site in a stable configuration until closure activities have been determined and initiated. Site size is approximately 3 acres.

8. PURPOSE AND USE OF DOCUMENT - This document was prepared for use within the U.S. Department of Energy and its contractors. It is to be used only to perform, direct, or integrate work under U.S. Department of Energy contracts. This document is not approved for public release until reviewed.

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Legends removed per request of Legal KMB 7/9/92

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9. Impact Level 4

10. RELEASE STAMP

OFFICIAL RELEASE BY WHC 5
DATE JUL 13 1992
Sta. 4

RECORD OF REVISION	(1) Document Number WHC-SD-DD-TI-063	Page 1

(2) Title
216-U-1 and 216-U-2 Cribs Interim Stabilization Final Report

CHANGE CONTROL RECORD

(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release	
		(5) Cog. Engr.	(6) Cog. Mgr. Date
0-A RS	(7) Page 14, Subsection 4.2.5, third sentence:	D. L. Smith	D. R. Speer
		DLSmith 7-9-92	DRSpeer 7-9-92
	Replace trademark name "Treflen" with generic		
	term, "trifluralin-impregnated."		
	Page 18, Section 8, second paragraph, second		
	sentence:		
	Same as page 14.		
	• Implement this change per ECN 167431.		
	Orig Original released by EDT-156107		
	2/25/92		

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A-7320-005 (08/91) (EF) WEF168

operated in the cave-in zones above the cribs without incident. No special precautions were taken as the equipment was never entirely in the cave-in zone. This was possible due to the large equipment and small cave-in potential area.

4.2.5. Zone 5

Zone 5 is the area above and immediately adjacent to the 241-U-361 settling tank. Readings of 2,000 to 6,000 dpm beta/gamma were present. This area was stabilized with shot-crete and trifluralin-impregnated fabric. Because the area surrounding the tank (Zone 3) was stabilized, wooden forms were built around the perimeter of the area to be shot-creted. This was to keep the area where shot-crete was to be applied free from surrounding clean fill. The biobarrier was placed within the confines of the forms. Plastic sheeting was fastened around each of the risers. This kept the risers free of shot-crete so that future sampling of the tank would not be hindered. Shot-crete was applied to a depth of 4 inches. After the shot-crete had cured, the forms were removed. The clean fill was then pushed out over the edge of the shot-crete. The surrounding soil was formed into a berm, and sloped away from the shot-crete. This will prevent run-off from accumulating over the settling tank. The area was posted as underground radioactive material.

4.3. POST STABILIZATION

Interim stabilization was completed in December 1991. This late finish date did not allow for revegetation to occur. Straw mulch was broadcast over the site and crimped. This should reduce the amount of soil erosion due to wind. Revegetation is planned for the fall of 1992.

Areas that were successfully decontaminated were released from radiological posting requirements. This includes the majority of Zone 1 and a portion of Zone 2. The remainder of the site was downposted to underground radioactive material. See Appendix A for the coordinates of the underground radioactive marker post.

Photographs (Figure 6) and civil surveys (Figure 7) were conducted to record site characteristics after interim stabilization had occurred.

The 216-U-1 and 216-U-2 cribs and surrounding areas will receive routine surveillance and maintenance. This will include monitoring for surface radioactive material, the presence of deep-rooted vegetation, subsurface intrusion by animals or insects, proper posting, and general appearance and condition. In addition, the site will receive applications of selective herbicide and be cleaned of unwanted vegetation.

7.4. SITE CHARACTERIZATION

More complete radiological surveys are required prior to initiating earth moving. This information would allow for better planning, and less scope change once the job begins. It is recommended that numerous test holes be excavated down to 12 inches and surveyed carefully for radioactive contamination. This information is crucial in determining if decontamination is feasible.

7.5. HEAVY EQUIPMENT WORK OVER UNDERGROUND PIPELINES

The 2607-W5 drain field was identified by Steam and Water Utilities as being susceptible to damage from interim stabilization activities. With careful planning, it was possible to work in the drain field without causing any damage.

A 20-inch and two 12-inch water lines were also identified by Steam and Water Utilities as being suspectable to damage from interim stabilization activities. A grader with its blade extended to one side was used to decontaminate the surface above the pipe. This prevented heavy equipment from having to operate directly on top of the pipelines, and allowed successful decontamination.

8. EXPECTATIONS

It is expected that the soil cover and vegetation will provide an adequate barrier to the radioactive contamination. This technique has proven successful on many other sites.

Since this is the first time shot-crete and trifluralin-impregnated fabric has been used on a Radiation Area Remedial Action (RARA) site, it is not entirely known how this technique will perform. It is expected to provide an adequate barrier to the radioactive contamination. The cover will crack due to freeze/thaw cycles. These cracks will most likely fill with dust. This dust may support plant life, however the roots should not penetrate the biobarrier. Until an adequate vegetation layer is established in the area surrounding the shot-crete, periodic removal of weeds and blown sand may be required.

9. TIMELINE

Interim stabilization began with site preparation in early November 1991 and ended in mid-December 1991 with reposting of the site.

ORIGINAL

INFORMATION

INFORMATION RELEASE REQUEST

Date Received: 4/8/92 AMB

Reference: WHC-CM-3-4

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Purpose

- [ ] Speech or Presentation (Check only one suffix)
  - [ ] Full Paper
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- [ ] Software/Database
- [ ] Controlled Document
- [ ] Other

ID Number (include revision, volume, etc.): WHC-SD-DD-TI-063 Rev. 0A

List attachments.

Date Release Required: 4/22/92

Title: 216-U-1 and 216-U-2 Cribs Interim Stabilization Final Report

Unclassified Category: UC-

Impact Level: 4

New or novel (patentable) subject matter? [X] No [ ] Yes
If "Yes", has disclosure been submitted by WHC or other company?
[ ] No [ ] Yes Disclosure No(s).

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Title of Conference or Meeting

Group or Society Sponsoring

Date(s) of Conference or Meeting

City/State

Will proceedings be published? [ ] Yes [ ] No
Will material be handed out? [ ] Yes [ ] No

Title of Journal

DOES NOT CONTAIN CLASSIFIED OR UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION

CHECKLIST FOR SIGNATORIES

Review Required per WHC-CM-3-4	Yes	No	Reviewer - Signature Indicates Approval: Name (printed)	Signature	Date
Classification/Unclassified Controlled Nuclear Information	[X]	[ ]	Terry S. Vail	Terry S. Vail	7/8/92
Patent - General Counsel	[X]	[ ]	S WISBERG ON	S Wisberg on	4/16/92
Legal - General Counsel	[X]	[ ]			
Applied Technology/Export Controlled Information or International Program	[ ]	[X]			
WHC Program/Project	[X]	[ ]	M. C. Hughes	M C Hughes	4/15/92
Communications	[ ]	[X]			
RL Program/Project	[X]	[ ]	~~for~~ Paul M. Pak	Paul M. Pak	5/11/92
Publication Services	[X]	[X]			
Other Program/Project	[ ]	[X]			

Information conforms to all applicable requirements. The above information is certified to be correct.

	Yes	No
References Available to Intended Audience	[ ]	[X]
Transmit to DOE-HQ/Office of Scientific and Technical Information	[ ]	[X]

Author/Requestor (Printed/Signature) Date

D. L. Smith David L. Smith 7/9/92

Intended Audience

[ ] Internal [ ] Sponsor [X] External

Responsible Manager (Printed/Signature) Date

D. R. Speer D R Speer 4/8/92

INFORMATION RELEASE ADMINISTRATION APPROVAL STAMP

Stamp is required before release. Release is contingent upon resolution of mandatory comments.

APPROVED FOR RELEASE OFFICIAL DOCUMENT Date 7/9/92

Date Cancelled | Date Disapproved

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BD-7600-062 (08/91) WEF074

Part 1

DISTRIBUTION SHEET

To: Surplus Facilities & RCRA Closures

From: Decommissioning Engineering

Date: 02/10/92

Project Title/Work Order:

216-U-1 and 216-U-2 Cribs Interim Stabilization Final Report

EDT No.: ~~156107~~ ECN No.: 167431

Name	MSIN	With Attachment	EDT/ECN & Comment	EDT/ECN Only
KEH				
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N. P. Fastabend	E2-50	X		
WHC				
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S. R. Durfee	T3-11	X		
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R. E. Jennings	X7-02	X		
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